

REMARKS

At the outset, the Examiner is thanked for the thorough review and consideration of the pending application. The Office Action dated May 16, 2007, has been received and its contents carefully reviewed.

Claims 1-4, 6, 8-10, 13-15 are rejected by the Examiner. With this response, claims 1 and 8 have been amended. No new matter has been added. Claims 1-15 remain pending in this application.

In the Office Action, claims 1-4, 6, 8-10 and 13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application No. 2002/0163615A1 to Fujioka et al.

(hereinafter “Fujioka) in view of U. S. Patent Application No. 2002/0131003 to Matsumoto et al. (hereinafter “Matsumoto”) and U.S. Patent No. 5,737,051 to Kondo et al. (hereinafter “Kondo”). Claims 14 and 15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Fujioka and Kondo in view of U.S. Patent No. 6,894,753 B2 to Song et al (hereinafter “Song”).

The rejection of claims 1-4, 6, 8-10 and 13 under 35 U.S.C. § 103(a) as being unpatentable over Fujioka in view of Matsumoto and Kondo is respectfully traversed and reconsideration is requested.

Claim 1 is allowable at least in that this claim recites a combination of elements, including, for example, “an organic layer on the color filter in the array region, the organic layer covering the first portion of the single metallic black matrix to shield an electric field in the array region, wherein the organic layer is formed in the array region” and “wherein the sealant is disposed in the second portion of the metallic black matrix and the organic layer is formed in a part area of the second portion of the metallic black matrix so that a part area of the metallic black matrix is exposed”. The cited references do not teach or suggest at least these features of the claimed invention.

In rejecting claim 1, the Examiner acknowledges that Fujioka “does not disclose an organic layer on the color filter in the array region, the organic layer covering at least a portion of the black matrix to shield an electric field in the array region, wherein the organic layer is formed in the array region and the sealant region and is in direct contact with the metallic black matrix and the sealant.” See Office Action, line 22 page 2-line 1 page 3.

The Examiner cites Matsumoto as allegedly teaching “flattening film (204) on the color filter in the array region, the organic layer covering at least a portion of the metallic black matrix, wherein the organic layer is formed in the array region and the sealant region and is in direct contact with the metallic black matrix and the sealant”. Further, the Examiner cites Kondo to as allegedly teaching “organic flattening film on the color filter”. See Office Action, lines 3-8 page 3.

As motivation for curing the deficiency of Fujioka with Matsumoto and Kondo, the Examiner states, “It would be obvious to one having ordinary skill in the art at the time the invention was made to employ an organic film on the color filter, wherein the organic layer is formed in the array region and the sealant region and is in direct contact with the metallic black matrix and the sealant”.

Applicants respectfully disagree that Matsumoto cures the deficiency of Fujioka, since Matsumoto fails to teach “wherein the sealant is disposed in the second portion of the metallic black matrix and the organic layer is formed in a part area of the second portion of the metallic black matrix so that a part area of the metallic black matrix is exposed”. Matsumoto merely discloses:

“Another portion of black matrix 202 (i.e., the portion 202b) is formed in the peripheral area 12 of the opposing substrate 200. A contact hole 206 for connecting the substrate is formed in the flattening film 204. The portion 202b of the black matrix 202 is exposed to the bottom of the contact hole 206 for connecting the substrate.”

and

“The contact hole 206 for connecting the substrates is provided so as to oppose the contact hole 117 for connecting the substrates which is provided in the TFT substrate 100. The same plug 118 is embedded in the contact hole 206 for connecting the substrates.”
See Paragraphs [0167] and [0168].

That is, in Matsumoto the plug 11 is disposed in whole area of the exposed portion of the flattening film 204 (i.e., the contact hole 206). On the contrary, in the claimed invention the sealant is disposed in a part area of the second portion of metallic black matrix (i.e., a part area of the exposed portion of the organic layer).

Accordingly, Applicants respectfully submit that claim 1 is allowable over the cited references.

Applicants respectfully traverse the rejection of claims 2-4 and 6 and reconsideration is respectfully requested. Claims 2-4 and 6 are allowable at least by virtue of the fact that they depend from claim 1, which is allowable.

Claim 8 is allowable over the cited references at least in that claim 8 recites a combination of elements including, for example, “forming an organic layer on the color filter in the array region, the organic layer covering the first portion of single the metallic black matrix to shield an electric field in the array region, wherein the organic layer is formed in the sealant region” and “wherein the sealant is disposed in the second portion of the metallic black matrix and the organic layer is formed in a part area of the second portion of the metallic black matrix so that a part area of the metallic black matrix is exposed.” In the Office Action, the Examiner rejects claim 8 for the same reasons as claim 1. Applicants’ arguments with respect to claim 1 are equally applicable to claim 8, and Applicants respectfully submit that claim 8 is allowable over Fujioka in view of Matsumoto and Kondo for the same reasons given for claim 1 above.

Applicants respectfully traverse the rejection of claims 9-10 and 13 and reconsideration is respectfully requested. Claims 9-10 and 13 are allowable at least by virtue of the fact that they depend from claim 8, which is allowable.

The rejection of claims 14 and 15 under 35 U.S.C. § 103(a) as being unpatentable over Fujioka and Kondo in view of Song is respectfully traversed and reconsideration is requested.

Applicants respectfully traverse the rejection of claim 14 and reconsideration is respectfully requested. Claim 14 is allowable at least by virtue of the fact it depends from claim 1, which is allowable.

Applicants respectfully traverse the rejection of claim 15 and reconsideration is respectfully requested. Claims 15 is allowable at least by virtue of the fact that it depends from claim 8, which is allowable.

Applicants believe the above amendments and remarks place the application in condition for allowance and early, favorable action is respectfully solicited.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. § 1.136, and any additional fees required under 37 C.F.R. § 1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911.

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Respectfully submitted,

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